

to the claims further define differences implicit in the definitions of the terms originally used.

It is believed that no new matter is presented in the amended claims. In particular, the term “generally spherical” may be located at line 11 of page 19 of the application as originally filed, as well as clearly seen in the diagrams. The term “shell” may be found at page 19 at line 5 et seq. The diagrams clearly show that the sockets and spires sit spaced apart from one another (Fig. 1 is quite clear for the assembled version with spires, Fig. 2 shows the sockets well separated from each other) and the text at page 19 supports this by discussing the facets on the shell between the spires, while page 18 discusses that the shell material may allow passing of light, obviously requiring exposed and visible surface area between the spires. The spires being “irregular cylindrical” or “frustum” bodies is also shown in the diagrams (Fig. 5).

RESPONSE

The Examiner presently rejects the application based upon US Patent No. 9,394,620 to inventor Wang, hereinafter the ‘620 patent, alone or in combination with other patents. In order to speed review of this Response and Amendment, the applicant will discuss the nature of the device of the ‘620 patent and compare it with the nature of the present invention.

THE DEVICE OF THE ‘620 PATENT

The ‘620 patent discloses a type of Moravian Star, a traditional and well known ornament popularized in Moravian schools in Germany in the 19th century and sometimes used as a geometry exercise. In general, it comprises a star which is composed of protruding points, each

point of the star is a simple geometrical shape (either a tetrahedron (3 sided point) or pyramid (4 sided point)), a fact noted by the Examiner in the First Office Action.

0. The middle portion of a Moravian Star (and of the '620 patent device) is simply a framework which invisibly or nearly invisibly supports the bases of the points of the star adjacent to one another.

1. Each side of the framework of a Moravian Star is a geometric shape matching the shape of base of the point which projects from it.

2. Each side of the framework of a Moravian Star supports the base of the point abutting or adjacent to the next point projecting from the next side

3. Each side of the framework of a Moravian Star is either invisible under the point it supports or else is barely visible.

4. Each point of a Moravian Star is a regular 3 sided or 4 sided polyhedron.

5. The hollow interiors and regular sides of the points of a Moravian Star allow light to shine down them, but do not act to focus, reflect or alter the light.

All these facts apply to the '620 patent device like as they do to other Moravian Stars.

THE PRESENT INVENTION

The present invention is not a Moravian Star. Instead, the present invention is a generally spherical core having a multitude of facets between sockets, the hollow core having an actual shell supporting a plurality of spires which are spaced apart from one another.

0. The core of the present invention is not a framework but an actual shell having large surface areas unrelated to the sockets, unlike the narrow framework of the

'620 reference which is entirely used to support the bases of points.

1. The core of the present invention does not have sides which match the shapes of the spires, nor do the facets of the core match the shapes of the spires, unlike the '620 reference. The present invention uses sockets to hold the spires in place.
- 5 2. Each socket of the present invention supports a spire at a spaced apart location from the next spire, leaving a substantial portion of the core shell visible in between, unlike the '620 reference which holds the bases of all points strictly adjacent to the bases of adjoining points.
- 10 3. The facets of the present invention are clearly visible and may pass light out of the core at locations in between the spires, unlike the '620 reference device which has no substantial area between point bases.
4. Each spire of the present invention is an irregularly cylindrical or frustum shaped body, unlike the '620 reference which teaches only 3 or 4 sided star points.
- 15 5. The facets of the spires of the present invention act on light inside the spire and focus and realign that light.

Based on these fundamental structural differences, the claims as originally submitted clearly differentiate the present invention over the '620 reference. The claims as presently amended clarify these differences.

20 Claims Rejections Under 35 USC Section 102, Paragraphs 1 through 4 of the First Office Action

The Examiner presently rejects claims 1 through 5 under 35 USC Section 102 over the

'620 reference, stating that the invention is anticipated by the '620 reference.

However:

“Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration” (W. L. Gore and Assoc. v. Garlock Inc. 721 F.2d 1540, Fed. Cir. 1983) and also the elements must be “arranged as in the claim” (Lindermann Maschinenfabrick GmbH v American Hoist & Derrick Co. 730 F.2d 1452, Fed. Cir. 1984).

Thus, every element of the claims, in particular claim 1, must be disclosed by the '620 reference for this ground for rejection to stand.

As noted, the '620 reference is a Moravian Star structurally dissimilar to the present invention. To very briefly summarize:

0. The invention has a shell having large areas visible between spires, the '620 reference does not have a shell and large areas between points.
1. The core of the present invention does not have triangular and square sides and the facets of the core do not match the shapes of the spires.
2. The spires of the present invention are spaced apart from one another, unlike the points of the '620 reference having bases adjacent to each other.
3. Each spire of the present invention is an irregularly cylindrical or frustum shaped body, unlike the '620 reference which teaches only geometrically regular 3 or 4

sided star points. (Called “ornamental quadrilateral pyramids” and “ornamental triangular pyramids” in the ‘620 abstract and specification).

4. The facets of the spires of the present invention act on light from inside the spire and focus and realign that light.

5 5. The support framework of the ‘620 reference is defined as a “polygonal frame” (see ‘620 reference, abstract and specification), not a “generally spherical body”.

Thus the claims as originally filed had at least one structural feature clearly not present in the ‘620 reference (a generally spherical shell versus a polygonal frame) and furthermore
10 definitions of these elements have been added to claims 1 and 2 to further clarify the other differences noted.

For all of these reasons, the applicant respectfully urges that the claims are in condition for immediate allowance and such action is respectfully requested.

15 Mechanical Function of Facets

The Examiner presently argues that the decorative facets of the invention are not patentably distinguishable from the regular triangular sides of a regular 3 and 4 sided pyramids of a Moravian Star.

20 However, the citation to the *In re Seid*, 161 F 2d 229, 73 USPQ 431 (CCPA 1971) notes that “matters relating to ornamentation only which have no mechanical function” cannot be relied upon to patentably distinguish. (In the Seid case, a bottle top having a torso with arms simply

had non-functional arms in a different position from the prior art.)

The spire facets of the present invention are not only structurally different from the sides of the regular pyramids of the points of the Moravian Star / '620 reference (as the Examiner implicitly noted), they also have a mechanical function not present in the '620 reference. As stated in the disclosure at page 20, lines 12 through 14: "However, in the presently preferred embodiment, spire facets 180 and spire grooves 190 will cooperate with light steps 200 (located on the interior of the spire 40) to focus and define the shine of light within the spire." This is noted in claims 11-13, which are the very claims the Examiner has presently stated to be allowable.

Thus the "decorative" facets of the present invention (the offending word "decorative" has been removed from the claims) have mechanical function: they focus and define the shine light within the spire.

At the present time, the applicant has not amended the claims to more clearly define this aspect of the invention, as it is felt that the structural differences of claim 1 over the prior art are sufficient for patentability. Should the issue arise at a later date, language such as "a plurality of spire facets which focus and define the shine of light within the spire" (from the disclosure) or "a plurality of light facets which receive and redirect light from within the spire" (from the disclosure and claim 11) may be considered for insertion into claim 1.

For all these reasons, the claims are in condition for immediately allowance and such action is respectfully requested.

Claims Rejection Under 35 USC Section 103, Paragraphs 5, 6 and 7 of the First Office Action

The Examiner presently rejects claims 6, 7, 9, 10, 14-20, and 22-28 as being “obvious” over a combination of the ‘620 reference and US Patent No. 6,811,282 to Kovacs, hereinafter the ‘282 reference.

However, the Examiner neglects to state the motivation for such a combination.

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“The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.” (*In re Fritch*, 972 F. 2d 1260, 23 USPQ 2d 1780 (Fed. Cir. 1992).

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The CAFC went on in *In re Fritch* to quote *In re Fine*, 837 F. 2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) to the effect that:

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“It is impermissible to use the claimed invention as an instruction manual or “template” to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This Court has previously stated that “[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.”

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Thus, the applicant respectfully requests the Examiner point to the motivation or suggestion to combine found in either the ‘282 reference or the ‘620 reference.

(The applicant notes that the structures of claim 17 are also not located in the prior art

even as combined: the tab and slot of the generally cylindrical spire of the invention are “turned” in order to lock into place, a feature obviously impossible with the regular pyramidal points having 3 and 4 sided bases shown in the ‘620 reference.)

For this reason, the applicant respectfully declines to amend claims 6 through 28, and
5 urges that these claims are in condition for immediate allowance, and such action is respectfully requested.

Rejection of Claim 29 Under 35 USC 103, Paragraph 7 of the First Office Action

10 The Examiner presently rejects claim 29 over US Patent No. 5951158 to Upah, hereinafter the ‘158 reference.

However, the Upah reference is non-analogous art, coming as it does from the field of earring design. As the CAFC stated in *In re Oetiker* 977 F. 2d 1443, 24 USPQ 2d 1443 (Fed. Cir. 1992), “It has not been shown that a person of ordinary skill, seeking to solve a problem of
15 fastening a hose clamp, would reasonably be expected to be motivated to look to fasteners for garments. The combination of elements from non-analogous sources, in a manner that reconstructs the applicants invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness... Oetiker’s invention is simple. Simplicity is not inimical to patentability.” The Examiner compares a holiday ornament having an electrical cord and plug
20 with an earring having a tiny wire from a battery (see First Office Action, paragraph 7). This is non-analogous prior art.

In addition, the applicant notes that the structure of the device of the ‘158 patent would

not allow insertion of an entire fiber optic bundle containing numerous fibers unless the earring were scaled up to a size making it no longer suitable for the human ear. It is basic that the structure of the prior art cannot be fundamentally altered in order to make it more closely match the invention.

5 For all these reasons, claim 29 is in condition for immediate allowance, and such action is respectfully requested.

Allowable Subject Matter, Paragraphs 8 and 9 of the First Office Action

10 The Examiner has in the First Office Action identified subject matter of claims 11-13 and 21 as allowable if amended. The applicant thanks the Examiner for this finding. However, all of these claims are dependent upon claim 6, which the applicant feels is in condition for immediate allowance without amendment, so the applicant will respectfully decline to amend these claims at this time.

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Conclusion, Paragraph 10 of the First Office Action

 For all the foregoing reasons, applicant respectfully urges that the application is now in condition for immediate allowance, and such action is requested. The Examiner is respectfully
20 urged to contact applicant's counsel, Craig W. Barber, PO Box 16220, Golden, Colorado, 80402-6004, 303-278-9973, fax 303-278-9977, with any questions or comments.



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Signed: 

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